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ABSTRACT

Three factors--demographic changes, economic changes, and high technology--will cause increasing diversity and consequently result in changes in school curriculum and policy priorities for the 21st century. Demographic trends will change because of changing birth patterns, aging of the population, changing family status, and increasing demand for education, and thus will call for: (1) individualized learning; (2) familiarity with cultural diversity; (3) alternative funding sources for schools; and (4) assumption by schools of a nurturing role for children. Economic changes will result in more schools as sites for retraining; more home-based schooling; increased management of schools/districts by private business; increased demands for minority teachers; and an increased high school drop-out rate, especially for minorities. The impact of technological changes will be reflected in more "expert" teaching via use of computers and videotapes, and replacement of the conventional paper, pencil, and book by computers. A global village facilitated by the technology of computers will help in creating unity among educators, providing for diversity of students, and promoting the resurgence of child-centered attitudes. Curriculum changes resulting from these factors will be characterized by instruction in problem-solving, critical and analytical thinking, and creative thinking. Individualized education plans, computers in every classroom, and cooperative learning will be emphasized. Besides public schools, nonprofit agencies will become involved in teaching. Priorities for policy planning will include: (1) quality child care and equity for all children; (2) emphasis on prevention (or early intervention) more than on maintenance; (3) emphasis on cooperation more than competition; (4) encouragement of flexibility, creativity, and the ability to adapt positively to change; (5) a global focus while keeping in mind the needs of children at the local and state levels; (6) involvement of parents in early childhood education; and (7) adaptation of schools to make them ready for the children. Contains 39 references. (BAC)

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IS YOUR SCHOOL READY FOR THE 21ST CENTURY?

A GENERAL OVERVIEW FOR PLANNING PURPOSES

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As we near the 21st century, the use of high technology, economic changes, and demographic changes now occurring in the United States are changing the balance toward diversity at an accelerating rate. As a result, curriculum changes and policy priorities become very important.

A few major trends are quite revealing. According to Clodi and Jacobson (1989) in a study reflecting trends sponsored by the American Association of School Administrators and the Allstate Insurance Company, population will shift more to the South and Southwest. There will be less leisure time. White males will account for only 15% of the job force. More people will be living for a longer period of time, therefore we will need to redefine old age. The average person will have about five jobs during their lifetime. A more rigid morality will emerge. We will become more and more a nation of "winners" or "losers" with no "in-betweeners". Education will become more child-centered.

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Demographic Changes

Stevenson, in a prologue for business management (1990), believes many of the coming trends in demographics will be caused by four things: changing birth patterns, age of population, changing family status, and demand for education. In the United States, it takes 2.1 births to maintain population. Today, the birth rate for whites is 1.7; for

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Puerto Ricans, 2.1; for blacks, 2.4; and for Mexican-Americans, 2.9. Due to these changing birth patterns, our nation is rapidly becoming filled with minority groups. The work force of tomorrow will be composed more of minorities. Both immigration and birth patterns will lead to this. For that reason, schools must adjust their curriculums to match the diversity of their students. Hodgkinson (1989) says this is not presently happening. All teachers should be planning ndividualized learning for each child in their class. This implies that teachers need to become familiar with cultural diversity in all forms.

The age of the population is also a factor. The 65 plus age group will increase by 20%; the 35-44 age group will increase by 10%; and the 15-17 age group will **decrease** by 15%. This means a smaller adult work force and an aging population. Today it takes only three employed workers to support a retired person and one of the three workers is a minority member (Stevenson, 199).

Only 25% of all families will have anyone going to public schools. That means 75% of our families will have no direct interest in our school systems. Sergiovanni (1987) points out that this will mean more competition for funding. Stevenson (1990) says we must find other sources than property taxes to fund our schools. Lotteries, educational impact fees, increased luxury taxes, or foundations may prove to be alternatives. Other alternatives are to provide services for the elderly or for small children in the school

system in conjunction with governmental agencies, create programs or aids that can be sold to other educational systems, or to rent out space for data processing and other services to private or government businesses.

Family status change has been dramatic. In 1955, 60% of the population lived in a family with a working father, a housewife mother, and two or more children. Today, that percentage is only 7%. We no longer are an agricultural nation, even though we still keep, for the most part, a nine-month school year that was a necessity during our agricultural days. Twelve out of 100 children are born out of wedlock and six of those are to teenage mothers. At least 40% of all children will have divorced parents by the time they reach age 18. Between 250,000-275,000 children are homeless (Stevenson, 1990). This number will be rising as Bassuk and Rosenburg (1988) state that mothers with babies is the fastest growing group among the homeless.

Stevens and Price (1992) add that premature babies, crack babies, alcohol-dependent babies, lead-injured babies, HIV positive babies, handicapped babies, abused babies and nutritionally deficient babies are on the rise. Naturally, all of these babies need special and different care in the classrooms. Educators will be forced to continually study and educate themselves in order to set up learning environments for such diversity and needed individualizism.

Working mothers, about 50% at this time, are also still on the rise. This means the schools will have to become more

and more the "family" and the nurturers for these children. Children, by the way, are six times more likely than those aged 65 or more to be poor. Our children, unlike the American Association of Retired Persons (AARP), do not have a huge, active, vociferous lobby to stand up for their rights.

The demand for education is changing rapidly also. Soon the baby boomers generation, people over 40, will comprise one-half of the population of the United States. Hodgkinson (1989) states we are not fulfilling this group's educational needs. Many of these workers are not ready but are being forced into a job market (because of layoffs and downsizings) where they have no marketable skills. This fact impacts on our children because many of them belong to these workers.

Children who are eligible for Head Start and such programs are not attending although more are eligible to attend. In fact, only 30% of elgible children under age five attend early childhood programs (Schweinhart, 1989). Cafarella (1987) says the population of the elementary school will increase rapidly until school year 1994-95 and then continue to increase more slowly. This should impact on future school planning.

Economic Changes

Since more people will need to be retrained because of changing jobs, schools will become the site for retraining. They will need to be open year round. Children will take regular classes during the day and extra classes during the late afternoon and the summer. The school year will increase

to 210 days and school will be open 24 hours daily. Children will come in the daytime, adults will come in the afternoon, and data processing and businesses will come at night (Stevenson, 1990).

Other school trends will be more homebased schooling as more parents become concerned about their children's education. More subschools within schools/districts will occur as schools try to interest more diverse groups, especially in larger school districts. Private business will take over the management of schools/districts more in the future. Teachers will be paid at 90% parity with other professional people. Equity, not merit, will be the concern (Stevenson, 1990).

Minority teachers will be more and more in demand as their numbers decrease in size over the years. More females will go into all types of administration including schools and hopefully, will be paid equal pay for equal work with males (The State Paper, April, 1993).

The high school drop out rate will continue to be a problem, especially for minorities (Hodgkinson, 1985). Only 40% of Hispanics graduate from high school now and this will continue to decrease. The number of graduates will decrease, especially in the Northeast, as that age group decreases in size and the population shifts to the South and Southwest. Asian-Americans will increase their population in the schools, mainly due to immigration. This will create second language problems for many schools. Fewer minority students

will choose to attend college. For these reasons, Hewlett (1991) says we will have an unskilled work force in the future.

As most educators already know, the seeds of failure are sown early in life. For this reason, the first goal of the National Education Goals (all children will begin school ready to learn) becomes significantly more important. Society will begin to fully understand the importance of the first years of life. It is plain to see that if this first goal is realized the other national goals will become more obtainable. Until we put our resources into making the first education goal a reality, however, the United States will continue to create a "third world" socially incompetent sub-population. Our children will not be independent, responsive, and productive citizens (Pellicano, 1987). Early childhood educators, entering the child's life near its beginning, know that many children face school failure even before they enter school (Hodgkinson, (1991). Neglect, poverty, poor health, lack of adult nurturance, and resulting developmental problems seem to foster a failure syndrome during the earliest years of life.

Technological Changes

Technology will have a bigger impact on education in the future than it presently does. International "connections" telecommunications systems are already a reality but will be used more in the future. There will be more "expert" teaching via use of computers and videotapes. Teaching will

become more "real" and exciting through computer simulations (virtual reality) on computer screens. Virtual reality allows for unlimited use of seeing and feeling firsthand in any area chosen. It will allow school children to "participate" in historical battles as well as to explore the oceans (Englebardt, 1993). According to Miller (1992), we need to change the way we think if we intend to assimilate more information. Instead of being only verbal-oriented, as we have been in the past with educational information, we will have a three-dimensional world that will allow us to hear, see, and feel reality. This technology alone will revolutionize education and schools.

Computers that replace the conventional paper, pencil, and book are envisioned (Stevenson, 1990). Technology will become more and more common in younger children as computers help them and their families achieve education goals (Swick, 1988). The present trend of lowered computer prices will help that goal become a reality. Computers will become as essential in the home as gas and electricity. It will be interesting to see if more constructive use of television will occur during this time. Even though it has been shown that violence on television has a detrimental effect on our children, as yet the economics factor has overridden the humanitarian factor.

The Internet offers freedom from barriers of sexism, ageism, and racism because we can't see the person with whom we are interacting. It offers a global village at its

fingertips (Polly, 1992). We have the capability to expand knowledge that none of us can fully comprehend at this time. All we need is a computer and a phone line wherever we are. Again the global village concept (Myers, Wilson, and Lienhard, 1993).

The information highway allows for the translation of all video and audio communications into digital information, the storage and compression of this data for travel through phone and cable lines, fiber-optic wiring that allows for a limitless pipeline, and new switching techniques that allow this information to go to every home (Elmer-Dewitt, 1993). Even our United States Government is in the race for information with the establishment of the NREN (National Research and Education Network (Notess, 1992).

Distance education will also be a trend in education. It offers technology, provides for the teacher shortage, provides for the homebound person, links people to the world, and helps encourage the global village concept (Barron, 1993). It can offer E-mail, databases, curriculum material databases, and other school related services.

The technology of computers will be of immense help in creating unity among educators, in adaquately providing for the diversity of our students, and toward promoting the resurgence of child-centered attitudes. As a result of recent research, more programs for "at-risk" students will occur. Experts and non-experts can communicate on topics ranging from research to simple questions via computers.

Teachers can communicate about common interests. A world classroom school can be solved with telephone wiring in a central location, in every classroom, or to a local network hooked to a larger network (Electronic Learning, 1992).

Since the Information Age is upon us, educators must use technology to access available information. It consumes less time and storage than journals and books. Keep in mind that the Information Age is just beginning and more and more information will be coming at a faster and faster pace in the future. Educators must work for prosocial and educational quality within mass communications sytems.

Curriculum Changes

What will be taught in schools of the future? Problem-solving skills, critical thinking skills and analytical skills will be crucial to solving work place problems. Creative and alternative or flexible ways of thinking will be greatly appreciated. Human relations skills remain essential for networking. Societal skills also remain important. Classes will be smaller and teacher teams will work on individualized education plans for various students with different learning styles and emotional styles (Stevenson, 1990). Individualized educational plans will become a reality for all children, not just for special education students.

Traditional schools with individual desks for each child will become classes with centers for the primary grades. There will be round tables for small group work, computers in

every classroom, and literacy awareness everywhere with "whole bits" instead of "small bits" of curriculum taught. Small and large projects will become the "norm" (Katz & Chard, 1989). Student plans will envision small groups of children or individual students pursuing their own interests with a variety of communication technology. Cooperative learning will be used more.

Other people will become involved in teaching besides public schools in the future. Among them are nonprofit agencies such as the United Way, businesses, and governmental agencies. Hopefully, alliances and collaborations between schools, governments, businesses, communities, and parents will become more of a reality. Successful and positive home/school partnerships will occur more and as a necessity because they work together for all children to be successful in their learning (Comer & Haynes, 1991; Epstein & Dauber, 1991; Swick, 1991). There will be more emphasis on environmental skills as we realize we must take better care of our planet. Educational processes and content that are relevant and realistic would be emphasized. Students will become increasingly responsible for their own learning.

Policy Priorities

Probably the biggest problem facing early childhood today is poverty. The United States has the highest percentage of children in poverty, 15%, of all industralized nations (Hewlett, 1991). One in five of our children will grow up poor (Children's Defense Fund, 1990). Our minority

children are in particular trouble. One in two of black children will be poor (Stern, 1987) and two out of five, or 40%, of Hispanic children will be poor (Geiger, 1991).

Unfortunately, the deterioration of children in America has been occurring for 25 years. If we become more child-centered in the future, this matter should be resolved. Hewlett (1991) says we have both a time deficit and a money deficit for our children at the present time. With both parents working and not much available time for children and a 20% poverty rate, we definitely need to set some priorities and make some commitments to our children (United Nations Children's Fund, 1984). More and more children will be in child care, of course, because more parents will be working. Hopefully, **quality** child care will become a major priority, along with equity for all children and integrity by all concerned (Kagan, 1990).

As a nation, we spend only one fifth of the money on children that we do on persons 65 years of age and older. It would take only 1.5 cents on every dollar that federal, state, and local governments spend to eliminate poverty in the United States (Children's Defense Fund, 1990). This is the equivalent of only one percent of the gross national product. This is a possibility if society and legislators are committed to reducing poverty in our country.

We will become a nation of lifelong learners to keep up with fast-growing technology and research. Prevention (or early intervention) should be emphasized more than

maintenance (or remediation). Cooperation will hopefully be prized more than competition in our future, as competetion is more prized today in our culture but cooperation is more needed. Tom Peters (1987) says the future of American businesses will depend on flexibility, creativity, smallness, and the ability to change quickly with the times. Ruth Keitz (1986-87) also suggests our new school world should include flexibility, creativity, and the ability to adapt positively to change.

Children in the 21st century will no doubt have the same needs as the children of today: a warm, loving, supportive environment; high expectations; and a chance for participation/involvement (Benard, 1992). A constructionist environment that is safe and healthy and allows for openness and vulnerability is needed. It is also cost effective. For example, every $1 spent on preschool education saves from $3 to $6 later in remedial education, welfare, and crime control (U. S. General Accounting Office, 1990).

National, state, and local leadership is desperately needed in many areas. The United Nations Children Fund Executive Board (1984) states that children are suffering needlessly because of partial and narrow approaches used for helping children (fragmentation), rather than an all-out encompassing approach. There are also unclear national policies and priorities. Educators must realize the political nature of their fight for the rights of children. We need a committment to our children's future! A "family

first" attitude needs to replace the "me first" attitude that seems so prevelant in today's society (Hewlett, 1991).

Educators must think globally while keeping in mind local and state needs of children. Problems should be solved with only one question as a priority: What is best for each child? The research is available to make a paradign shift in education in the 21st century. The important question here is will our educational leaders and politicians be courageous enought and possess enough personal integrity to make positive changes for children happen!

Parents must become as welcome in our schools as students, teachers and administrators. Parents must be empowered to demand quality and equity for all children. Parents who lack crucial parenting skills must become aware of and users of good parenting habits. Home visitation should be used if at all possible. A comprehensive early childhood education with involvement of both teachers and parents should be used as a means of preventing school failure (Hilliard, 1991).

Businesses and communities must become family-friendly and supportive of all children. Television networks should become more responsive to eliminating violence and providing more educational programs for preschoolers. As Chafel (1990) points out, the world of work will suffer from a lack of educated adults when it most needs them if society does not intervene early in the lives of children at-risk. Economically speaking, it is an investment in the future. It

is also the humane thing to do. All generations should be enlisted for this quest.

Our schools must become ready for our children, not the reverse! Schools **must** become the "nurturers" of the young, the "comforters" of the aged, the "retoolers" of the work force, and the "Socrates" for students in order for us to be successful in the 21st century (Stevenson, 1990, paraphrased by Tunstall). The goal of all concerned with young children should be to raise each child as one who "works well, plays well, loves well, and expects well" (Garmezy, 1974; Werner and Smith, 1982).

There should be hope for even our smallest and youngest citizens. As President Vaclav Havel (1990) of Czechoslovakia stated:

> Hope is not the same as joy when things are going well, or willingness to invest in enterprises that are obviously headed for early success, but rather an ability to work for something to succeed. Hope is definitely not the same thing as optimism. It's not the conviction that something will turn out well, but the certainty that something makes sense, regardless of how it turns out. It is this hope, above all, that gives us strength to live and to continually try new things, even in conditions that seem hopeless. Life is too precious to permit its devaluation by living pointlessly, emptily, without meaning, without love and, finally, without hope.
>
> (Disturbing the Peace)

The very least we can do as educators in the 21st century is to provide each child with hope. Is this not true?

References

Benard, B. (1992, summer). Fostering resiliency in kids: Protective factors in the family, school, and community. Illinois Prevention Forum, 12 (3), 1-16.

Barron, D. (1993). Class notes for CLIS 706, Summer II, University of South Carolina, July 27, 1993.

Bassuk, B., & Rosenburg, C. (1988, July). How do we care for the new homeless? American Journal of Public Health, 78 (2), 786-787.

Caffarella, E. P. (1987, July). Effects of the baby boomette on school enrollment. School Business Affairs, 53 (7), 41-43.

Chafel, J.A. (1990, summer). Needed: A legislative agenda for children at risk. Childhood Education, 241-242.

Children's Defense Fund. (1990). Children 1990: A report card, briefing book, and action primer. Washington, DC: Children's Defense Fund. (EDRS Document Reproduction Service No. ED 315 188).

Clodi, D. R., & Jacobson, J. (1989, April). The future and American's schools: What do these trends mean for education? The School Administrator, 15-16, 18.

Comer, J. P., & Haynes, N. M. (1991, January). Parent involvement in schools: An ecological approach. The Elementary School Journal, 91 (3), 271-277.

Electronic Learning. (1992, March). The most complete guide ever to telecommunications, 18-29.

Elmer-Dewitt, P. (1993, April 12). Take a trip in the future on the electronic superhighway. Time, 51-58.

Englebardt, S.L. (1993, December). Get ready for virtual reality. Reader's Digest, 143 (860), 127-131.

Epstein, J. L., & Dauber, S. L. (1991, January). School programs and teacher practices of parent involvement in inner-city elementary and middle schools. The Elementary School Journal, 91 (3), 289-305.

Garmezy, N. (1974). The study of competence in children at risk for severe psychopathology. In E. J. Anthony (Ed.), The child in his family, Vol. 3: Children at psychiatric risk, 77-98.

Geiger, K. (1991). Early childhood education and the

public schools. In David Elkind (Ed.) Perspectives on early childhood education: Growing with young children toward the 21st century. NEA Early Childhood Education Series. West Haven, CT: NEA Professional Library. (EDRS Document Reproduction Service No. ED 337 275).

Havel, V. (1990). Disturbing the Peace. Knopf.

Hewlett, S. A. (1991). When the bough breaks: The cost of neglecting our children. New York: Harper Perennial.

Hilliard, A.G. (1991). Equity, access, and segregation. In S.L. Kagan (Ed.), The care and education of America's young children: Obstacles and opportunities. Chicago: The University of Chicago Press, 199-213.

Hodgkinson, H. L. (1989). The same client: Demographics of education and service delivery systems. Washington, DC: The Institute for Educational Leadership, Inc., Center for Demographic Policy.

Hodgkinson, H. L. (1985). All one system: Demographics of education, kindergarten through graduate school. Washington, DC: The Institute for Educational Leadership, Inc., Center for Demographic Policy.

Kagan, S. L. (1990). Policy perspectives: Excellence in early childhood education: Defining characteristics and next-decade strategies. Washington, DC: U.S. Government Printing Office.

Katz, L.G., & Chard, S.C. (1989). Engaging children's minds: The project method. Norwood, NJ: Ablex.

Keitz, R. (1986/87, December/January). Integrating curriculum for tomorrow's students. Educational Leadership, 44 (4), 68-70.

Miller, C. (1992, November). Virtual reality and online databases...Online, 12-13.

Myers, J.E., Wilson, T.C., & Lienhard, J.H. (1993, June). Surfing the sea of stories: Riding the information revolution. Internet Librarian, 30A-30H.

Notess, G.R. (1992, September). Gaining access to the Internet. 27-34.

Pellicano, R.R. (1987, March). At risk: A view of "social advantage." Educational Leadership, 44 (6), 47-49.

Peters, T. (1987). Thriving on Chaos. NY: Harper Perennial.

Polly, J. (1992, June). Surfing the Internet: An

introduction. Wilson Library Bulletin, 38-42, 155.

Schweinhart, L. J. (1989). Looking at the big picture: early childhood programs in the U.S. today. High/Scope Press, High Scope Resources.

Sergiovani, et al. (1987). A demographic portrait of schooling in America.

The State Paper. (1993, April). Columbia, SC.

Stern, M. J. (1987, March). The welfare of families. Educational Leadership, 44 (6), 82-87.

Stevens, L. J., & Price, M. (1992, September). Meeting the challenge of educating children at risk. Phi Delta Kappan, 74 (1), 18-20, 22-23.

Stevenson, K. R. (1990). 21st century trends: Facing the world of tomorrow. In K. Stevenson & J. Lane (Eds.) School Business Management in the 21st century.

Swick, K. J. (1991). Teacher-parent partnerships to enhance school success in early childhood education. Washington, DC: National Education Association of the United States.

Swick, K. J. (1988). Appropriate uses of computers with young children. In Mac H. Brown (Ed.) Quality environments: Developmentally appropriate experiences for young children. Champaign, IL: Stipes Publishing Company.

United Nations Children's Fund Executive Board. (1984). Early childhood development, policy review. New York: UNICEF. (EDRS Document Reproduction Service No. ED 322 988).

United States General Accounting Office. (1990, July). Home visiting: A promising early intervention strategy for at-risk families. Report to the Chairman, Subcommittee on Labor, Health and Human Services, Education, and Related Agencies, Committee on Appropriations, U.S. Senate (EDRS Document Reproduction Service No. ED 327 049).

Werner, E., & Smith, R. (1982). Vulnerable but invincible: A longitudinal study of resilient children and youth. New York: Adams, Bannister, and Cox.